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EXAMINER	
DUONG, FRANK	

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2666	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/643,920	Applicant(s) TACKIN ET AL.	
	Examiner Frank Duong	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-110* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-110* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/17/04*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is a response to communications dated 11/17/04. Claims 1-110 are pending in the application.

Information Disclosure Statement

2. The information disclosure statement filed 11/17/04 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been considered and placed in the application file.

Claim Objections

3. Claim 71 is objected to because of the following informalities: Line 2, "the coupling means" should change to --the selecting means--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 57-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 57 recites the limitation "*wherein the bypass selects the input ... a threshold value*" in lines 8-10. There is insufficient antecedent basis for this limitation in the claim.

Claims 58-69 variously depend from their indefinite parent claim 57

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-110 are rejected under 35 U.S.C. 102(e) as being anticipated by Li (USP 6,549,587).

Regarding **claim 1**, in accordance with Li reference entirety, Li discloses a method of controlling gain (*Fig. 8A-Fig. 9 and col. 20, line 44 to col. 21, line 64 and thereinafter*) applied to a an input signal (150(a), comprising:

applying gain to the input signal (150);

estimating a characteristic the signal with gain (154); and

selecting (157) one the input signal (150(a)) and the signal with gain (150(b)) as an output (66) depending on the estimated characteristic (154(a) or 154(b)), wherein the input signal is selected as the output when the estimated characteristic of the signal with gain is different than a threshold value (clipping threshold) (col. 20, line 67).

Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales

discussed above), Li further discloses wherein the characteristic comprises power level (col. 20, lines 46-48).

Regarding **claim 3**, in addition to features recited in base claim 2 (see rationales discussed above), Li further discloses wherein the signal is selectively coupled to the output when the estimated power level of the signal with gain is above a clipping threshold (col. 21, lines 1-4).

Regarding **claim 4**, in addition to features recited in base claim 3 (see rationales discussed above), Li further discloses wherein the power level estimation comprises averaging the power level for a period of time (col. 21, lines 10-11 and thereinafter).

Regarding **claim 5**, in addition to features recited in base claim 4 (see rationales discussed above), Li further discloses wherein the power level estimation further comprises estimating second power level (154(b)) by averaging the power level of the signal with gain for a second period of time lower than the period time, the method further comprising adjusting the gain applied to the signal as a function of the second estimated power level (col. 21, lines 9-33).

Regarding **claim 6**, in addition to features recited in base claim 5 (see rationales discussed above), Li further discloses peak tracking (158) the second estimated power level, wherein the gain adjustment (152) is a function of the tracked peak (*col. 21, lines 14-33*).

Regarding **claim 7**, in addition to features recited in base claim 6 (see rationales discussed above), Li further discloses wherein the gain adjustment comprises changing a rate of gain adjustment (152) as function of the tracked peak (col. 21, lines 26-33).

Regarding **claim 8**, in addition to features recited in base claim 7 (see rationales discussed above), Li further discloses wherein the rate of gain adjustment, when the second estimated power level is greater than the tracked peak, exceeds the rate of gain adjustment when the second estimated power level is less than the tracked peak (col. 21, lines 9-33).

Regarding **claim 9**, in addition to features recited in base claim 7 (see rationales discussed above), Li further discloses wherein the rate of gain adjustment is decreased at about 2-4 dB/sec when a reference value exceeds the clipping threshold, the reference value being a function of the tracked peak (col. 21, lines 9-33).

Regarding **claim 10**, in addition to features recited in base claim 9 (see rationales discussed above), Li further discloses wherein the rate of gain adjustment is decreased at about 0.1-0.3 dB/sec when a reference value is less than the clipping threshold but greater than a predetermined maximum comfort level, the reference value being a function of the tracked peak (Fig. 9 and col. 21, lines 34-64).

Regarding **claim 11**, in addition to features recited in base claim 7 (see rationales discussed above), Li further discloses wherein the rate of gain adjustment is logarithmically increased at about 0.1-0.3 dB/sec when a reference value is below a predetermined minimum comfort level and above a noise floor, the reference value being a function of the tracked peak (Fig. 9 and col. 21, lines 34-64).

Regarding **claim 12**, in accordance with Li reference entirety, Li discloses method (*Fig. 8A-Fig. 9 and col. 20, line 44 to col. 21, line 64*) of controlling gain (150) applied to a signal (150(a)), comprising:

applying gain (150) to the signal;

estimating (154) a characteristic of the signal with gain;

peak tracking (158) the estimated characteristic;

generating a reference value (160) as a function of the tracked peak, wherein if the signal amplitude increases, the reference value rises relatively quickly and if the signal amplitude decreases, the reference value decreases relatively slowly; and adjusting the gain applied to the signal as a function of the reference value (col. 21, lines 34-64).

Regarding **claim 13**, in addition to features recited in base claim 12 (see rationales discussed above), Li further discloses wherein the characteristic comprises power level (col. 20, lines 46-48).

Regarding **claim 14**, in addition to features recited in base claim 13(see rationales discussed above), Li further discloses wherein the power level estimation comprises averaging a power level of the signal with gain for a period of time (col. 21, lines 9-11).

Regarding **claim 15**, in addition to features recited in base claim 14 (see rationales discussed above), Li further discloses wherein the power level estimation further comprises estimating a second power level (154(b)) by averaging the power level of the signal with gain for a second period of time shorter than the period of time, the method further comprising selectively coupling (157) one of the signal (150(a)) and the signal with gain (150(b)) to an output (66) depending on the second estimated power level of the signal with gain (col. 21, lines 1-8 and thereinafter).

Regarding **claim 16**, in addition to features recited in base claim 15 (see rationales discussed above), Li further discloses wherein the signal is selectively coupled to the output when the second estimated power level of the signal with gain is above a clipping threshold (col. 21, lines 1-8 and thereinafter).

Regarding **claim 17**, in addition to features recited in base claim 13 (see rationales discussed above), Li further discloses wherein a rate of change of an amplitude of the reference value, when the power level is greater than the tracked peak, exceeds the rate of change of the amplitude of the reference value when the estimated power level less than the tracked peak (col. 21, lines 34-64).

Regarding **claim 18**, in addition to features recited in base claim 13 (see rationales discussed above), Li further discloses wherein a rate of gain adjustment is decreased at about 2-4 dB/sec when the reference value exceeds a clipping threshold (col. 21, lines 34-64).

Regarding **claim 19**, in addition to features recited in base claim 18 (see rationales discussed above), Li further discloses wherein the rate of gain adjustment decreased at about 0.1-0.3 dB/sec when the reference value is less than the clipping threshold but greater than a predetermined maximum comfort level (col. 21, lines 34-64).

Regarding **claim 20**, in addition to features recited in base claim 13 (see rationales discussed above), Li further discloses wherein rate of gain adjustment is logarithmically increased at about 0.1-0.3 dB/sec when the reference value is below a predetermined minimum comfort level and above a noise floor (col. 21, lines 34-64).

Regarding **claim 21**, in addition to features recited in base claim 13 (see rationales discussed above), Li further discloses wherein the signal with gain comprises first and second plurality of samples, the first samples preceding the second samples time, and the reference value generation comprises not changing the reference value if the estimated power level for the second samples exceeds the estimated power level for the first samples by a threshold (col. 21, lines 1-64).

Regarding **claim 22**, in accordance with Li reference entirety, Li shows a signal conditioner (Fig. 8A) for adjusting (150) a gain (152) applied to an input signal (150(a)), comprising:

combiner (150) to apply gain to the input signal;

an estimator (154) to estimate a characteristic of the signal with gain; and

bypass (157) to select one of the input signal (150(a)) and the signal with gain (150(b)) as an output (66) of the signal conditioner based on the estimated characteristic, wherein the bypass selects the input signal as the output when the estimated characteristic of the signal with gain is different than a threshold value (col. 20, line 46 to col. 21, line 8).

Regarding **claim 23**, in addition to features recited in base claim 22 (see rationales discussed above), Li further shows wherein the characteristic comprises power level (col. 20, lines 46-48).

Regarding **claim 24**, in addition to features recited in base claim 23 (see rationales discussed above), Li further shows wherein the bypass couples the signal

with gain the output of the signal conditioner when the estimated power level of the signal with gain is below a clipping threshold (col. 21, lines 1-8).

Regarding **claim 25**, in addition to features recited in base claim 24 (see rationales discussed above), Li further shows wherein the estimator estimates the power level by averaging the power of the signal for a period of time (col. 21, lines 9-12).

Regarding **claim 26**, in addition to features recited in base claim 25 (see rationales discussed above), Li further shows wherein the estimator estimates a second power level by averaging the power of the signal for a second period of time longer than the period of time, the signal conditioner further comprising a gain calculator (160) that calculates the gain to be applied to the signal based on the second estimated power level of the signal with gain (col. 21, lines 9-64).

Regarding **claim 27**, in addition to features recited in base claim 26 (see rationales discussed above), Li further shows further comprising a peak tracker (158) that tracks the second estimated power level peak and outputs a reference value based on the tracked peak, the gain calculator calculating the gain to be applied to the signal based on the reference value (col. 21, lines 9-64).

Regarding **claim 28**, in addition to features recited in base claim 27 (see rationales discussed above), Li further shows wherein the peak tracker increases an amplitude of the reference value at a first rate when the second estimated power level the signal with gain is greater than the reference value, and decreases the amplitude

the reference value at a second rate when the second estimated power level of the signal is less than the reference value, the first rate being faster than the second rate.

Regarding **claim 29**, in addition to features recited in base claim 27 (see rationales discussed above), Li further shows wherein the gain calculator changes a rate of adjustment of the gain applied to the signal as function the reference value (col. 21, lines 9-64).

Regarding **claim 30** in addition to features recited in base claim 26 (see rationales discussed above), Li further shows wherein the gain calculator decrements the gain applied to the signal at a rate of about 2-4 dB/sec when the reference value exceeds the clipping threshold (col. 21, lines 9-64).

Regarding **claim 31**, in addition to features recited in base claim 30 (see rationales discussed above), Li further shows wherein the gain calculator decrements the gain applied to the signal at a rate of about 0.1-0.3 dB/sec when the reference value is less than the clipping threshold but greater than a predetermined maximum comfort level (col. 21, lines 9-64).

Regarding **claim 32**, in addition to features recited in base claim 29 (see rationales discussed above), Li further shows wherein the gain calculator logarithmically increases the gain applied to the signal at a rate of about 0.1-0.3 dB/sec when the reference value is below a predetermined minimum comfort level and above a noise floor (col. 21, lines 9-64).

Regarding **claim 33**, in accordance with Li reference entirety, Li discloses signal conditioner for adjusting gain applied to a signal (150(a)) (*Fig. 8A-Fig. 9 and col. 20, line 44 to col. 21, line 64*), comprising:

a combiner (150) to apply gain (152) to the signal;

an estimator (154) a characteristic of the signal with gain;

a peak tracker (158) that tracks the estimated characteristic peak and generates a reference value (160) as a function of the tracked peak, wherein if the signal amplitude increases, the reference value rises relatively quickly and if the signal amplitude decreases, the reference value decreases relatively slowly (col. 21, lines 9-34); and

a gain calculator (160) that calculates the gain to be applied to the signal as a function of the reference value (col. 21, lines 35-64).

Regarding **claim 34**, in addition to features recited in base claim 33 (see rationales discussed above), Li further discloses wherein the characteristic comprises power level (col. 20, lines 46-48).

Regarding **claim 35**, in addition to features recited in base claim 34 (see rationales discussed above), Li further discloses wherein the power level estimation comprises averaging a power level of the signal with gain for a period of time (col. 21, lines 9-11).

Regarding **claim 36**, in addition to features recited in base claim 35 (see rationales discussed above), Li further discloses wherein estimator estimates a second power level (154(b)) by averaging the power level of the signal with gain for a second

period of time shorter than the period of time, the method further comprising selectively coupling (157) one of the signal (150(a)) and the signal with gain (150(b)) to an output (66) depending on the second estimated power level of the signal with gain (col. 21, lines 1-8 and thereinafter).

Regarding **claim 37**, in addition to features recited in base claim 36 (see rationales discussed above), Li further discloses wherein the bypass couples the signal with gain to the output of the signal conditioner when the second estimated power level of the signal with is below a clipping threshold (col. 21, lines 1-8 and thereinafter).

Regarding **claim 38**, in addition to features recited in base claim 34 (see rationales discussed above), Li further discloses wherein the peak tracker increases an amplitude of the reference value at a first rate when the estimated power level of the signal with gain is greater than the reference value, and decreases the amplitude of the reference value at a second rate when the estimated power level of the signal with gain is less than the reference value, the first rate being faster than the second rate. (col. 21, lines 34-64).

Regarding **claim 39**, in addition to features recited in base claim 13 (see rationales discussed above), Li further discloses wherein the gain calculator changes a rate of gain adjustment as a function of the reference value (col. 21, lines 34-64).

Regarding **claim 40**, in addition to features recited in base claim 18 (see rationales discussed above), Li further discloses wherein the gain calculator decrements the gain applied to the signal at a rate of about 2-4 dB/sec when the reference value exceeds the clipping threshold (col. 212, lines 34-64).

Regarding **claim 41**, in addition to features recited in base claim 13 (see rationales discussed above), Li further discloses wherein the gain calculator decrements the gain applied to the signal at a rate of about 0.1-0.3 dB/sec when the reference value is less than the clipping threshold but greater than a predetermined maximum comfort level (col. 21, lines 34-64).

Regarding **claim 42**, in addition to features recited in base claim 33 (see rationales discussed above), Li further discloses wherein the gain calculator logarithmically increases the gain applied to the signal at a rate of about 0.1-0:3 dB/sec when the reference value is below a predetermined minimum comfort level and above a noise floor (col. 21, lines 1-64).

Regarding **claim 43**, in addition to features recited in base claim 13 (see rationales discussed above), Li further discloses wherein the combiner comprises a multiplier (150).

Regarding claims 44-56, the claims call for an implementation of method steps of claims 1-11 into a transmission system. Thus, they are rejected by the same rationales applied to claims 1-11 discussed above.

Regarding claims 57-69, the claims call for an implementation of signal conditioner of claims 33-43 into a transmission system. Thus, they are rejected by the same rationales applied to claims 33-43 discussed above.

Regarding **claim 70**, in accordance with Li reference entirety, Li shows a signal conditioner (Fig. 8A) for adjusting (150) a gain (152) applied to an input signal (150(a)), comprising:

means for applying (150) gain to the input signal;

means for estimating (154) a characteristic of the signal with gain; and

means for selecting one (157) of the input signal (150(a)) and the signal with gain (150(b)) as an output (66) of the signal conditioner based on the estimated characteristic, wherein the bypass selects the input signal as the output when the estimated characteristic of the signal with gain is different than a threshold value (col. 20, line 46 to col. 21, line 8).

Regarding **claim 71**, in addition to features recited in base claim 70 (see rationales discussed above), Li further shows wherein the bypass couples the signal with gain the output of the signal conditioner when the estimated power level of the signal with gain is below a clipping threshold (col. 21, lines 1-8).

Regarding **claim 72**, in addition to features recited in base claim 70 (see rationales discussed above), Li further shows wherein the power estimation means estimates the power level by averaging the power of the signal for a period of time (col. 21, lines 9-12).

Regarding **claim 73**, in addition to features recited in base claim 72 (see rationales discussed above), Li further shows wherein the power estimation means estimates a second power level by averaging the power of the signal for a second period of time longer than the period of time, the signal conditioner further comprising means for calculating (160) the gain to be applied to the signal based on the second estimated power level of the signal with gain (col. 21, lines 9-64).

Regarding **claim 74**, in addition to features recited in base claim 73 (see rationales discussed above), Li further shows further comprising means for peak tracking (158) the second estimated power level peak and outputs a reference value based on the tracked peak, the gain calculator calculating the gain to be applied to the signal based on the reference value (col. 21, lines 9-64).

Regarding **claim 75**, in addition to features recited in base claim 74 (see rationales discussed above), Li further shows wherein the peak tracking means increases an amplitude of the reference value at a first rate when the second estimated power level the signal with gain is greater than the reference value, and decreases the amplitude the reference value at a second rate when the second estimated power level of the signal is less than the reference value, the first rate being faster than the second rate.

Regarding **claim 76**, in addition to features recited in base claim 74 (see rationales discussed above), Li further shows wherein the gain calculation means changes a rate of adjustment of the gain applied to the signal as function the reference value (col. 21, lines 9-64).

Regarding **claim 77** in addition to features recited in base claim 76 (see rationales discussed above), Li further shows wherein the gain calculation means decrements the gain applied to the signal at a rate of about 2-4 dB/sec when the reference value exceeds the clipping threshold (col. 21, lines 9-64).

Regarding **claim 78**, in addition to features recited in base claim 77 (see rationales discussed above), Li further shows wherein the gain calculation means

decrements the gain applied to the signal at a rate of about 0.1-0.3 dB/sec when the reference value is less than the clipping threshold but greater than a predetermined maximum comfort level (col. 21, lines 9-64).

Regarding **claim 79**, in addition to features recited in base claim 76 (see rationales discussed above), Li further shows wherein the gain calculation means logarithmically increases the gain applied to the signal at a rate of about 0.1-0.3 dB/sec when the reference value is below a predetermined minimum comfort level and above a noise floor (col. 21, lines 9-64).

Regarding **claim 80**, in accordance with Li reference entirety, Li discloses signal conditioner (*Fig. 8A-Fig. 9 and col. 20, line 44 to col. 21, line 64*) for adjusting gain (150) of a signal (150(a)), comprising:

means for applying gain (150) to the signal;

means for estimating (154) a power level of the signal with gain;

means for peak tracking (158) the estimated power level of the signal and generating a reference value (160) as a function of the tracked peak, wherein if the signal amplitude increases, the reference value rises relatively quickly and if the signal amplitude decreases, the reference value decreases relatively slowly (col. 21, lines 9-33); and

means for calculating (160) the gain applied to the signal as a function of the reference value (col. 21, lines 34-64).

Regarding **claim 81**, in addition to features recited in base claim 80 (see rationales discussed above), Li further shows wherein the power estimation means

estimates the power level by averaging the power of the signal for a period of time (col. 21, lines 9-12).

Regarding **claim 82**, in addition to features recited in base claim 81 (see rationales discussed above), Li further shows wherein the power estimation means estimates a second power level by averaging the power level the signal with gain over a second period of time shorter than the period of time, the signal conditioner further comprising means for selectively coupling (157) one of the signal and the signal with gain to an output of the signal conditioner as a function of the second estimated power level of the signal with gain (see Fig. 8A for element connections).

Regarding **claim 83**, in addition to features recited in base claim 82 (see rationales discussed above), Li further shows wherein the coupling means couples the signal with gain to the output of the signal conditioner when the second estimated power level of h i 1 with is below a clipping threshold (col. 21, lines 1-8).

Regarding **claim 84**, in addition to features recited in base claim 80 (see rationales discussed above), Li further shows wherein gain application means comprises a multiplier (150).

Regarding **claim 85**, in addition to features recited in base claim 80 (see rationales discussed above), Li further shows wherein the peak tracking means (158) increases an amplitude of the reference value at a first rate when the estimated power level of the signal with gain is greater than the reference value, and decreases the amplitude of the reference value at second rate when the estimated power level the

signal with gain is less than the reference value, the first rate being faster than the second rate (col. 21, lines 9-34).

Regarding **claim 86**, in addition to features recited in base claim 80 (see rationales discussed above), Li further shows wherein the gain calculation means changes a rate of gain adjustment as a function of the reference value (col. 21, lines 35-64).

Regarding **claim 87**, in addition to features recited in base claim 86 (see rationales discussed above), Li further shows wherein the gain calculation means decrements the gain applied to the signal at a rate of about 2-4 dB/sec when the reference value exceeds the clipping threshold (col. 21, lines 1-9).

Regarding **claim 88**, in addition to features recited in base claim 87 (see rationales discussed above), Li further shows wherein the gain calculation means decrements the gain applied to the signal at a rate of about 0.1-0.3 dB/sec when the reference value is less than the clipping threshold but greater than predetermined maximum comfort level (col. 21, lines 34-64).

Regarding **claim 89**, in addition to features recited in base claim 86 (see rationales discussed above), Li further shows wherein the gain ' calculation means logarithmically increases the gain applied to the signal at rate of about 0.1- dB/sec when the reference value below a predetermined minimum comfort level and above a noise floor (col. 21, lines 34-64).

Claims 90-100 calls for computer code of method claims 1-11. Thus, they are rejected by the same rationales discussed above.

Claims 101-110 calls for computer code of method claims 12-21. Thus, they are rejected by the same rationales discussed above.

Response to Arguments

6. Applicant's arguments with respect to claims 1-110 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FRANK DUONG
PRIMARY EXAMINER

May 30, 2005